

FACT SHEET

Enviva Air Permit

Overview

The Enviva wood pellet manufacturing facility in Southampton County, Va., has submitted an application to the Virginia Department of Environmental Quality for an air permit to expand their operations and install additional controls to limit pollution.

What is an air permit?

An air emissions permit is a legal document that describes how a facility meets state and federal air quality regulations. These regulations set “standards”— air pollution limits established to protect public health and the environment. The permit makes sure that facilities limit air emissions to keep pollution below the standard.

What is an Air Quality standard?

The Clean Air Act requires the U.S. Environmental Protection Agency to set air quality standards for specific pollutants considered harmful to public health and the environment. The air quality standards protect public health, even of “sensitive” populations such as asthmatics, children and the elderly. Additionally, the standards prevent decreased visibility and damage to animals, crops, vegetation and buildings. Standards are established for “criteria pollutants.” Criteria pollutants are the most common air pollutants, and are often produced from mobile and stationary sources, i.e. power plants and manufacturing facilities. The criteria pollutants are:

- Ozone (O₃) = Volatile organic compounds (VOC) + Nitrogen oxides (NO_x)
- Nitrogen dioxide (NO₂)
- Sulfur dioxide (SO₂)
- Particulate matter (PM₁₀ and PM_{2.5})
- Carbon monoxide (CO)
- Lead (Pb)

DEQ also regulates Hazardous Air Pollutants (HAP) via the Clean Air Act and the Virginia Air Toxics Rule. The draft permit limits Enviva’s emissions of these pollutants to amounts less than Virginia’s health-based concentrations.

Why does Enviva need an air permit?

Facilities that create emissions must receive permits to make sure that emissions are tracked and managed. When Enviva makes pellets, some pollution is created. The drying and heating process cause emissions that have emission standards. The permit sets quantitative limits on the permissible amount of specific air pollutants that may be released over specific timeframes. Some of the emissions can be limited by installing new or additional air pollution control equipment. Enviva has a permit for existing operations, but is applying for a new permit to expand operations and to change the ratio of hardwood to softwood that is used for pellets. Enviva is required to obtain and comply with a minor new source review permit.

What pollutants are included in Enviva’s permit?

The following pollutants are limited by the permit:

Pollutant	Current Permit (tons/yr)	Proposed Permit (tons/yr)
NO _x	75.6	177.5
CO	52.7	176.8
VOC	245.0	80.8
SO ₂	16.6	24.0
PM ₁₀	82.2	114.2
PM _{2.5}	82.2	74.1
Total HAP	24.1	18.3

How does DEQ know how much air pollution Enviva emits?

When Enviva applies for a permit, the permit application must include how much pollution will be produced. The applicant describes the processes that will produce and limit pollution, and includes manufacturers' specifications, as well as an engineering analysis. DEQ staff determine if the calculations and processes are reasonable and appropriate. DEQ verifies this information by conducting on-site inspections and periodically requires the applicant to test emissions. Enviva must monitor the performance of its control equipment and report emissions, as well as share the raw materials and procedures it uses.

How does Enviva limit air pollution?

Currently, Enviva limits the rate of pellet production, controls the type of materials used (i.e.; limits its softwood to 10 percent because softwood releases more pollution), and uses "Best Available Control Technologies" that control NOx and PM. If Enviva expands operations, it will have to install many more pollution control measures, which will further reduce particulate and VOC pollution. New controls will include regenerative thermal oxidizers to control VOCs/HAPs, and wet scrubbers and fabric filters to control PM pollution. Regenerative thermal oxidizers decompose VOCs and HAPs into water vapor and carbon dioxide by heating exhaust to over 1400° F.

How can I provide input on Enviva's proposed air permit?

Attending a public meeting is a good way to gain background knowledge to be able to understand a permit. It is anticipated that DEQ will accept public comments on the permit from Aug. 12 until Sept. 27. Comments should address the technical merits of the permit — it is not a vote. Comments may be submitted in writing, and can also be made in person at a public hearing scheduled for Sept 12. A public notice announcing the beginning of the comment period will be placed in the Tidewater News the Sunday before the start of the comment period. The permit will be available at DEQ.Virginia.gov/Programs/Air.

Who can I contact for additional information?

For additional information, contact:

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